To: Sean Maddox, ENGL 149 Teacher at Cal Poly

From: Dylan McCassey, ENGL 149-15 Student

Subject: Work Packet 4

Date: 10/19/14

**Chapter 20 Response**

1.

* Blender

I chose this term because it is both a technical term contained within my discourse and because of how many times I use it.

“Import the corresponding texture to your Blender (a common 3D modeling program) project…”

* Model

I chose this term because it is the main focus of the instructions.

“Manipulate the polygons on the model (the file that dictates an objects shape) to match the skeleton.”

* Animation

I chose this file because it is referenced quite a few times but is not necessarily the focus of the instructions.

“Run a test animation (a piece of programming that dictates how a model moves through an environment) to verify…”

2.

Items – Categories – Distinguishing Characteristics

* Texture

I chose this term because of its importance to one of the major steps in my instructions.

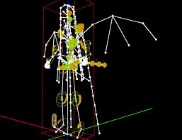
A texture is an image that is stretched over a model to give it definition.

* Animation Skeleton

I chose this term because it is one of the three tools and items necessary for the instructions.

An Animation Skeleton is a piece of programming that dictates how an animation interfaces with a model.

3.

An Animation Skeleton is a piece of programming that determines how an animation interfaces with a model. They do this by associating different parts of the model with different “bones” much like a human body, in order to program how a model will move and when. Skeletons often look like the one depicted in this image.

***Sequence 2 – Claim Letter***

To: Jim Anderson, Senior Developer, Gameplay

From: Dylan McCassey, Junior Developer, Gameplay

Subject: Sunset Shogun Design Assets Issue

Date: 10/15/14

Hello Mr. Anderson,

I'm Dylan McCassey, a new hire gameplay developer from floor 3. Earlier today I received some assets for Sunset Shogun from the design team, including textures, character models and weapon models. After placing the assets in my build, I found a few issues.

The first thing I noticed was that the character model for several characters did not fit their animation skeleton, causing their proportions to stretch and compress in odd places. In one instance, this disproportion created clipping issues with some of the normal maps in the tutorial dungeon. In another instance, the jumping animation caused the model's knees to clip with the model's head.

Secondly, I noticed that the textures I was sent had a few issues with the lighting. In some rooms, they reflected too much light, making it difficult to see anything else in the environment. In darker rooms, the armor textures in particular seemed to disregard the lack ambient light and reflected light that the engine did not generate.

The third issue I found was with the weapon models. Many weapons were oriented incorrectly when equipped, most likely a problem with the orientation of the model when it was applied to its skeleton. The hitboxes for the weapons were correct however, leading to a sword being swung upside down, but still dealing damage in the area that it would had it been oriented correctly.

These issues cannot be overlooked for much longer. Our release date will be negatively affected if this problem persists, and the vision that the creative directors have for the game won't be well represented in the final product. In order to have this fixed I was hoping you could notify the design team in order to make them aware of the issue and instruct them on how they can fix it.

Thanks,

Dylan McCassey

**Fixing 3D Models**

|  |  |
| --- | --- |
| **Purpose:**  These instructions cover the process off editing and correcting existing 3D models using **Blender**. A character model and skeleton will be used as an example, but this process applies to editing any and all 3D models. | **Necessary Tools and Items:**   * **Blender** * 3D Model (ex: Character Model) * Animation Skeleton |

|  |  |
| --- | --- |
| **1.**  Open both the 3D Model and Animation Skeleton in **Blender** and orient them such that the **middle** of the model is **concurrent** with the skeleton. | C:\Users\dmcca_000\Desktop\DirectionSkel.jpg |

**Steps**

|  |  |
| --- | --- |
| **2.**  Manipulate the polygons on the model to match the skeleton. These changes should be cross referenced with the original art to maintain accuracy. | C:\Users\dmcca_000\Desktop\nw10rl.jpg |
| **3.**  Import the corresponding texture to your **Blender** project and verify that the texture is stretched correctly over the model. If not, repeat step 2. | C:\Users\dmcca_000\Desktop\DirectionTexture.jpg |
| **4.**  Run a test animation to verify that no significant clipping occurs during the animation. If not, repeat step 2. Repeat for all animations. | C:\Users\dmcca_000\Desktop\DirectionAniTest.jpg |
| **5.**  Export the edited model to the appropriate folder and place its skeleton and texture in the same location. | C:\Users\dmcca_000\Desktop\Directionmenu.gif |